THE VETERINARY RECORD

A Weekly Journal for the Profession.

No. 368. SATURDAY, JULY 27, 1895. Vol. VIII.

Compulsory Notification.

The three communications we published last week on this question show that the importance of the proposed measure is fully appreciated by the profession. The Board of Agriculture desire to know the feeling of the Royal College of Veterinary Surgeons, and point out that compulsory notification by veterinary practitioners "would be of great assistance to local authorities." To this Mr. Ward very aptly replies—"What have they done to help themselves, to help the stock-owner or to recognise the veterinary surgeon." He goes on to point out that provincial authorities employ "cow doctors" and police constables as their inspectors of disease, and that the Metropolitan authority declines to deal fairly by the horse-owner who has the misfortune to get his horses infected with Glanders. This is quite too true, and there is weight in Mr. Ward's argument that we should not voluntarily ally ourselves with those bodies who make themselves obnoxious to stockowners, or who fail to do anything for the profession except what is likely to be looked upon as oppressive. In other words Mr. Ward thinks we should not always be asked to give our services and brains to enable other people to take the credit of successes which without our aid would be failures. There should be some "give and take"—some honest recognition of our position and value as well as a grudging use of our services.

With all this we agree most thoroughly, and if all that the proposed Act would give us is the *rôle* of compulsory informers we should unanimously decline to be used as "cats paws" for others. Our existence depends upon the owners of stock. Even with fair and honest measures for repression of disease the stock-owner is none too unanimous in assisting the authorities. With measures enforced harshly and unfairly, or with measures so badly framed that disease is not suppressed whilst irritating and useless restrictions on trade are rigorously enforced, the stock-owner resents the action of everyone concerned. To voluntarily ally ourselves with the unsuccessful and harsh attempts to suppress disease would indeed be folly. We should get no thanks from the authorities, and we should soon find our veterinary services to the stock-owner looked upon with suspicion if not with aversion. This state of things would culminate in some practitioners failing to notify, and the fines imposed upon them would be a small tax on the increased employment they would obtain from dissatisfied clients.

On the other side, it must be admitted that there are arguments in favour of notification. The man most likely to pander to the prejudices of clients is not always the best practitioner or the best friend of his employer. At present this man is more likely to evade notification than his rival who thinks that the existence of disease should be disclosed. If notification were compulsory all would have to act or suffer the penalty of default. Our correspondent F.R.C.V.S. thinks that if we were compelled to report the quack would benefit, as he would be free to notify or not as he chose. This is a mistake. If a Diseases of Animals (Notification) Act were passed on the lines of the Act now applying to medical men a clause would provide for notification by the owner, occupier of the premises and by "every person in charge of or in attendance on" the diseased animal. This would prevent the escape of responsibility by unregistered practitioners.

It will not do for us to consider the subject purely from a selfish point of view. Public interests and the good of the stockowner will be the chief questions that will affect the decision of Parliament. We agree with Mr. Barrett that "much benefit would undeniably result from the compulsory notification of infectious diseases (by veterinary surgeons) . . . and by aiding the authorities we shall . . . . show the public that a great saving has been effected by our notification and advice!! We may just as well make a virtue of necessity, and instead of opposing what we cannot prevent, offer our willing assistance and at the same time point out how ungraciously we are rewarded for all our help. Probably this line might lead to some re-adjustment of our position in relation to the Board of Agriculture and to the Local Authorities. We may remember, too, that what is suggested is not a new thing. It applies to all medical practitioners in London and may be brought into action by any local authority. The veterinary profession cannot well claim to reject what the medical men have not opposed.

As to fees, we are never likely to obtain for the same kind of work, double the fee paid to doctors. We may be content with a fee of half-a-crown for notifying disease.

We should be sorry to see an Act applying to veterinarians left for enforcement to local authorities. It should affect us all and be applied generally. The medical practitioners have to notify to the Medical Officer of Health of the district. Veterinary practitioners should notify to the veterinary officer of the district—not to the policeman or other "executive officers" who may be pretending to do professional work. The diseases to be notified should be those included in the Diseases of Animals Act and any other contagious disease of animals thought necessary by a local authority. Some of our more advanced local authorities might thus obtain useful information as to the prevalence of tuberculosis, strangles, mange etc.

CASES AND ARTICLES.

CONSULTATIONS IN VETERINARY PRACTICE.

By E. Wallis Hoare, F.R.C.V.S., Cork.

It has often been a matter for surprise that so few consultations are held among veterinary surgeons Many reasons might be adduced to account for this, among which the commercial value of the patients would occupy a prominent position. This element which figures so conspicuously in veterinary practice is without doubt a great drawback in many instances.

In human medicine it does not hold good, for if a case is incurable, no skill or expense is spared to prolong the life of the patient, and the practitioner gains credit for his efforts in this direction. But with us the case is very different, and unless our patient is restored to practical utility, all our efforts are not appreciated, and the owner will freely admit that it would have been better if the animal died at the outset of the disease and so saved him expense and trouble. Indeed in many instances we find that it is difficult to obtain fair remuneration in cases where the patients die after an illness either long or short, and in a country district this fact is greatly intensified.

Under such circumstances it is clear that where one practitioner finds it difficult to obtain remuneration for his attendance and medicines, it would be impossible to expect the owner to pay for a consultant. And yet there is no calling in life in which the adage "Two heads are better than one" could be more appropriately applied than in veterinary practice. The obscurity of symptoms, the difficulties of diagnosis, and the varieties of patients and of diseases, render the advice and assistance of the consultant of supreme importance. And in surgical cases similar remarks would apply with equal force, whether the consultant be a senior or a junior.

But it is apparent that there are other reasons for the paucity of consultations, and chief among these we must place the want of observance of the ordinary rules of professional ethics which we so frequently notice among practitioners. In many instances the consultant endeavours to demonstrate his superiority over the attending practitioner. If he be a senior and holding a high reputation, then he will make a hurried diagnosis, of course differing widely from that of the attendant, and as a result a different line of treatment is ordered. If an error has been committed in the first instance, no attempt is made to conceal it, and it is either blurted out before the owner and his groom, or what is far worse told to the former privately. But frequently no error in judgment has occurred and still the consultant must differ in opinion from the attendant in order to gain favour with the client.

It certainly is amusing in some cases to observe the extent to which this diversity of opinion is carried. If the attendant is treating a wound with dry antiseptic dressings, the consultant will order poultices. If poultices have been used in the first instance, then they are rapidly condemned, and strict antiseptic measures prescribed, not forgetting any amount of probing, etc., and a display of antiseptic solutions and different dressings to catch the eye of the client. If hot applications are being applied they are changed to cold and *vice versa*. If the attendant has enjoined strict rest for the patient, the consultant will order exercise and *vice versa*.

But it is in cases of obscure disease that the consultant has the best chance of showing his superior knowledge. Perhaps the attendant has very properly given a guarded diagnosis after a careful examination of the patient; the consultant has hardly entered the stall before he gives a blunt opinion, no doubt or difficulty exists in his mind as to the nature of the case or its proper treatment. Of course this is bound to be different from that given by the attendant, and with the result that the consultant is put down by the client as being a very clever man, "knows what is wrong with a horse as soon as he looks at him" is what we are often told.

If the patient lives the consultant gets the credit, and in all probability the client in addition. But if the patient dies and an autopsy is held, a very different state of affairs comes to light and the man who indulges in "bluff" and "lightning diagnosis" is shown up in his true colours.

Similar remarks would apply to cases of lameness. Here the consultant has great scope, because he sees the result of the attendants' treatment, and his opinion of course will vary according to the original diagnosis. If the horse goes sound ultimately, it is the consultant that cured him, and no credit is given to the power of nature or the influence of rest.

Can we wonder why veterinary surgeons dislike consultations and only have recourse to them at the express wish of their clients? If, in our profession the ordinary rules of medical ethics were adopted and followed, consultations would be far more frequent with manifest advantage to patients, clients and practitioners. We must confess that there is a marked absence of that *esprit de corps* which should exist among members of the same profession. How frequently we hear one veterinary surgeon holding up his brother practitioner to ridicule in public places, and taking a delight in describing the errors and ignorance of the latter. Not that it enhances the reputation of the would-be judge, critic, and sometimes slanderer, with educated people: often it has the opposite effect. But the intention is always evident, viz., self-laudation and jealously, and the keener the competition, the greater the amount of this un-professional element, which is introduced.

No doubt there are many who will deny the frequency of such occurrences as the above, and who imagine that professional etiquette is advancing with the other improvements in our calling. Unfortunately we are only too familiar with gross breaches of etiquette, not involuntary, but deliberate; and when one practitioner goes out of his way to injure the reputation of another and evinces an utter disregard for truth in his statements, we are forced to the conclusion that a code of moral and professional ethics

is urgently needed by veterinary surgeons. We know how careful the members of the medical profession are in this respect, and how in consultations as well as in all professional matters the rules of etiquette are strictly observed. In the veterinary profession there is ample room for reformation in this respect, and if strict etiquette were observed we would find that clients would seldom ask one practitioner to attend a case which at the same time was under the care of another, without informing the latter. But the public are often keen observers, and when they see that veterinary surgeons themselves disregard the ordinary rules of etiquette, instead of asking for a consultation, they prefer to transfer the case to another practitioner if it is not progressing in a satisfactory manner.

The remedy is in the hands of members of the profession, if they desire to act towards one another as professional men should do. Of course competition interferes with the observance of ethics, and the survival of the fittest is the order of the day. But if the profession is to advance and hold its proper place in the scientific world, its members must observe the ordinary rules of etiquette, and encourage consultations while endeavouring to cultivate a proper *esprit de corps*. The adverse criticism of the public we cannot always avoid, but by adhering to the motto *Vis unita fortior* we can afford to treat it lightly.

SUNSTROKE IN A PIG.

By W. M. Scott, Bridgwater.

Sunstroke is a disease which we, living as we do in a moderate clime, hear very little about, at least as far as my enlightenment goes. Moreover this particular case possesses some peculiarities which I consider are worth recording.

Subject.—A nursing sow in very plethoric condition.

History.—No previous illness. Was seen about one o'clock, when she displaced a very large meal. At 2.30 p.m. I was sent for, when I noted the following symptoms:—Patient was semi-comatose, respiration 80 per minute and slightly stertorous, head depressed, would lie on the sternum, then roll over on to flank and remain there panting. The eyes dull and vacant, the membranes and skin slightly cynotic. The skin was in a profuse state of perspiration and excessively hot. Attempts made to take the pulse were futile. The temperature per rectum registered 107·1° F. Prognosis unfavourable.

Treatment—of course, was eneregtic. Cold water was dashed about the patient which was instrumental in quietening the respiration. Cold water was also poured over the region of the heart from a height. A weak solution of ammonia was injected under the skin, while Spt. Æther nit. was administered per rectum. Round the house were hung cold cloths, which had a wonderful effect in counteracting the rays of the sun. The body-surface was kept cool with a bag wrung out in vinegar water—and the patient ordered to be kept in perfect quietude.

At 6.30 p.m. same evening I saw patient again, and found extraordinary improvement. The breathing was quietened, but was disturbed on moving. She looked brighter than hitherto. The temperature was 102·1° F. The patient, however, was very weak and seemed rather stupid. A draught was administered containing Ol. Croton, Spt. Ammon. Aromat. and Oleum Ricini. Next morning the patient was greatly better and stronger, and had eaten a light vegetable meal—lettuce. The bowels very active. Recovery was uninterrupted.

Remarks.—From the manifestation of the above symptoms, I take it the sow was the subject of pulmonary and cerebral congestion, that the actual cause was the excessive heat. I forgot to mention that this case happened on Tuesday, June 18th, of this year, *i.e.* during the excessively hot days a short time ago when the thermometer registered, in the shade, over 80° F. The exciting or predisposing causes will be found in the facts that the animal was extremely plethoric and also that she had eaten, immediately before her illness, a rather large and bulky meal necessitating gastric distention, etc.

Some, doubtless, will be inclined to think that the actual cause is to be found in the deranged stomach, and that the extreme heat was only playing a secondary part. Personally, I am inclined to attribute the mischief to the thermic causes, all the others ranging only as secondary. And judging from the treatment adopted, followed by so successful an issue one is inclined to infer that this was a confirmed case of insolation. Another point of note was the temperature. On first taking, I was astonished to find it 107·1, so much so in fact that I inserted the thermometer (per rectum) again, and found the same registration. But still more wonderful it had gone down 5° in about four hours' time. It is well known in medicine that the sudden fall of the mercury in an acute disease is usually a precursor of death, but in this case it was not so.

TWO FRACTURES.

By A. Miller, Assistant to F. W. Watchorn, F.R.C.V.S., Newtown, North Wales.

As the two cases occurred within a few days I thought perhaps they might be worth recording:—

Comminuted Fracture of the Os Suffraginis.

This case occurred in a cart mare, about 16 years old, that was turned out at grass. She was seen by the waggoner to be kicking at another horse in the same field and in return was kicked on her hind foot. As the case seemed hopeless the owner was advised to have her killed, when the post-mortem revealed the suffraginis to be broken into over 50 pieces.

Fractured Pelvis.

The case of fractured pelvis was in an old cow. At the time of fracture she was in œstrum and had been seen to be ridden by the other cows whilst out at grass. When first seen the cow was lame, with considerable swelling over the hip joint, but she was able to walk fairly well, but when seen again she was down and unable to rise. From examination both external and per rectum the conclusion was arrived at that the pelvis was fractured in the region of the acetabulum, and the owner was advised to have her destroyed, post-mortem revealing complete fractures of the shaft of the ilium about an inch from the acetabulum.

VETERINARY SOCIETIES.

ROYAL COUNTIES VETERINARY MEDICAL ASSOCIATION.

(Continued from page 39.)

(Meeting at Maidenhead, June 28th. Mr. H. Watkins-Pitchford on "Epilepsy in the Dog.")

DISCUSSION.

Prof. PENBERTHY said that beyond expressing his pleasure at having heard from an old pupil of his, such a highly intellectual and interesting paper, he did not know that he had anything to say. It was one of those subject the pathology of which was not at all settled, and he could not dispute anything Mr. Pitchford had said, nor could he particularly support any theory he had brought forward. He could, however, endorse what he had said as to the importance of the subject. Some 12 months ago there was a correspondence in *The Lancet*, suggesting that intestinal worms might occasionally be the cause of epilepsy in the human subject. He (the speaker) ventured to send a short communication to that paper on the subject, giving the result of his experience, at any rate of the existence of worms in the intestinal tubes of dogs and pigs which were the subjects of epilepsy. That drew forth more than 100 pages of *The Lancet* in a correspondence from a good many medical men, who though not previously attaching much importance to worms told him that, strange to say, in several children they had evidence of ascarides where they had evidence of epilepsy. That canine epilepsy was the same as human epilepsy he was not prepared to say, nor did he think anyone was at the present moment. He could only, as far as his present experience went, say that in nine cases out of ten of epilepsy he had no doubt, if they were to thoroughly investigate by post-mortem examination, worms would be found to be the cause. The ascaris marginata in the dog—the common hard round worm—he considered to be the most common cause in the production of epilepsy. Mr. Pitchford in his remarks drew attention to their duty when they saw a dog being belaboured to death as rabid when they knew it was only epileptic. He believed that in the course of rabies anything like an epileptic fit was exceedingly rare. In three years, making post-mortem examinations for the police of dogs that died in London, killed by the police or supposed to have died from rabies, by far the greater number of histories of the cases tallied better with epilepsy than with rabies, and the post-mortems generally revealed the presence of large numbers of worms. Another point mentioned in the paper was the possibility or probability of confounding strychnine poisoning with epilepsy. He perfectly agreed with Mr. Pitchford in saying the essential feature of epilepsy was not the convulsion, but the sudden and total loss of consciousness; but his opinion was that strychnia did not materially interfere with the consciousness. That he believed to be in general accord with the views of therapeutists; and indeed he thought they had means of distinguishing between epilepsy and strychina poisoning generally. He did not say that dogs poisoned with strychnia might not occasionally show loss of consciousness, particularly if the dose had been large and mixed with other materials, such as those found in rat poisons—a common means used for poisoning dogs. As far as practice was concerned he thought it was good always, no matter what their ideas might be about an injury or anything else, to treat the dog in the first place for worms. During the paroxysms, which did not always cease when the worms had been expelled, he quite agreed with Mr. Pitchford that large doses of bromide of potassium, up even to 10 grs., might be given, for he thought in that remedy they had something which changed the nerve centres on which the epileptic convulsions depended. They knew that a large number of dogs had worms without showing epileptic fits, and that to him rather suggested a change in the centre, whatever that centre might be. The complete recovery from epilepsy, which only occurred in young dogs rather than old, suggested to his mind that the changes in the nerve centres were not of a very marked character. He did not like to distinguish between a functional and an organic disease. He thought the change in the dog quickly passed off after the irritation had been removed; but occasionally they found something left in the nerve centre, and the epileptic fit coming on again gradually. As a result of his experience he would say that he had found arsenic in those cases of greater benefit than anything except bromide. He believed Dr. Brown-Sèquard invariably prescribed bromide at one part of the day and arsenic or strychnia at another period of the day. He had himself adopted the usual doses of bromide and small doses of arsenic, and he had also tried arsenic alone. In the majority of cases of epilepsy he suspected, at any rate, intestinal worms. He had often had the same condition in young pigs three or four months old, suffering from ascarides, and when they were expelled recovery was the general result. As to prolonged lactation as a cause he should like the experience of the meeting. He had never once been able to trace it as a cause of epilepsy.

Professor PRITCHARD rather took exception to the statement in the paper that dogs did not pay the veterinary practitioner so much as the horse. He presumed Mr. Pitchford meant that there were not the number of valuable dogs to treat compared with the number of valuable horses. If he meant that persons who owned dogs did not attach as much importance to their pets as many other persons attached to their horses he strongly joined issue with him. He had very frequently met with clients who had been willing to pay quite as high a fee for his attendance upon their dog as others would for attendance upon their horse. He was himself very fond of dog practice, but he always charged a very heavy fee, especially to get rid of it, not on account of having to deal with the dogs, but on account of having to deal with the parties to whom they belonged, for they occupied a very large amount of time. (Hear, hear.) He should like to have heard something more about what epilepsy was. The line adopted that afternoon seemed to fix it wholly and solely upon the nervous system. He very much doubted whether that was so. He was more inclined to think it was due to an upset rather of the circulatory system than of the nervous. He should like to hear some remarks upon whether it was due to congestion of the small arterial trunks of the brain, to a congested state of the venous system of the brain, or to such conditions affecting the spinal cord. For his own part he was rather inclined to think it more due to circulatory interference than to a primary interference with the nervous system. That might be met by saying that the circulation could not be interfered with without the nervous system becoming involved, but the nervous system which influenced circulation was of the ganglionic and not of the brain system. He believed a very common cause of epileptic fits in dogs was a sudden development, if he might so term it, he meant when a puppy grew remarkably quickly, became developed into a large dog in a very short space of time. He had seen cases very frequently which could be traced to nothing less than large development of the puppy in a very short space of time. As to the presence of parasites in the intestinal canal, how did it give rise to a fit? Was it merely the presence as an irritating agent, or to some specific effect it had on the lining membrane of the parts? As he had said, he did not court dog practice, and on that account his experience was limited.

Prof. McCall, being called on, first made some remarks on the fractured bones submitted by Mr. Butters. Passing on to the paper, he would say that as the production of a young man he thought it highly creditable, and he thought that that credit was not solely due to the individuals who taught him. He must have done a great deal more for himself than any teaching he had received, and that was just what every young man ought to do. When he got up to read a paper before a Society such as that he ought to do, as Mr. Pitchford had done, his level best to make it worthy of the occasion. Prof. Pritchard and he were old friends, and he knew he would not take amiss anything he said. He had put before them the question, was epilepsy a disease more dependent upon the stoppage of circulation or upon nerve derangement, but he did not think their friend had any difficulty at all in expressing his view of it. He thought the majority of those present would be of the same opinion, that epilepsy was primarily a nervous affection. He thought they were almost justified in making a classification of disease by the symptoms presented by the animal. Here they had loss of consciousness, loss of co-ordination of movement, loss of vision, and many other losses which Prof. Pritchard knew as much about as he did, the centre of which was in the brain; so that epilepsy was not only a nervous disorder, but to his mind also a disorder in some cases of the cerebrum. As to worms, it was not the worm as a worm that produced epilepsy; it was the effect those parasites had upon the centres in the brain. As everyone knew, they had 99 cases of worms in the bowel of young animals without any epileptic fits for one where they had epilepsy. It was not, therefore, the worms as worms, but it was the power which they had of disturbing the power of reflex action either in the cord or in the brain, or in both. In some cases they had simply the power of disturbing co-ordinate movements and reflex actions in the cord, in other cases they had the power of disturbing the functions of the brain. They had a centre of reflex action in the spinal cord perfectly independent of the brain; but the centres of reflex action in the brain and in the cord under healthy action co-ordinated one with the other; so he thought there could be no doubt at all that in epilepsy the centre of volition, the centre of consciousness, the centre of reflex action, was also the centre of disturbance. In his practice he had found a few cases of epilepsy in the dog with worms present; but he repeated that he had found far more cases of parasites in the bowels where there were no such symptoms exhibited. Worms as worms could not produce epilepsy, but worms as a local irritant in the bowels, by that irritant being carried to the cord and also to the brain, might produce most aggravated forms of epilepsy. He had also had cases of epilepsy in the cow where the animals were in low condition, and had been milked within a very short time of giving birth to their young; and there his opinion was that lactation, by weakening the general system, had no doubt intensified a latent development of the disease.

Then he came to a very interesting point, which their friend Professor Penberthy had referred to, viz., the similarity sometimes between strychnine poisoning and epilepsy. He agreed with Professor Penberthy that where an animal had had pure strychnine administered there was no great difficulty in distinguishing the case from a diseased condition: but where, it might be, strychnine had been administered in combination with other irritants there was very great similarity in the symptoms and consequent difficulty in deciding. He could not speak from experience of the advantages of such medicinal agents as bromide of potassium and arsenic. He quite agreed with Mr. Pitchford in believing epilepsy in the dog to be due very much to the same causes as produced it in the human being, and that the large development of the nervous system in, and the wonderful intelligence displayed by the dog, was no doubt the reason why epilepsy was so much more common in the dog than it was in other animals.

On the proposition of Mr. Irving, seconded by Mr. Mellett, the discussion was then adjourned to the next meeting.

Mr. Walker proposed a very hearty vote of thanks to Mr. Watkins-Pitchford for his excellent paper. However much they might know, or however much they did not know, with regard to epilepsy in the dog, they would all agree that the essayist had treated his subject in a very able and interesting manner. (Hear, hear.)

The Hon. Sec. could not allow anyone else to second the vote. He did not wish to infer that he had any trouble in inducing Mr. Watkins-Pitchford to prepare a paper, because he very loyally fell in with his (Mr. Hurndall's) suggestion that as a young man it was almost part and parcel of his duty to do something towards interesting that Association. He could not speak in language sufficiently eloquent to express his appreciation of the high class paper Mr. Pitchford had submitted that day, and no words could possibly convey to him how much he felt indebted to him for the efforts he had put forward in its preparation. He felt that the paper was well worthy of being carried forward for further consideration at another meeting, and then he himself hoped to have something to say on the subject. He had a good deal to say differing from what had been said, and also a few practical suggestions to make which those having to deal with dogs might wish to hear. (Hear, hear.) When he told them he had had some hundreds of cases of epilepsy under his care he thought, without being egotistical, they would give him credit for being in a position to tell them what had been successful in his hands, more especially as his prescriptions differed entirely from those suggested that day. His opinions of the cause of the disease differed entirely from those of Professor Penberthy and Professor Pritchard, but he should express them with considerable diffidence, because he looked on himself as only an ordinary practitioner, while he could not but look up to those who had already spoken as leaders of the profession. He should not wish for a moment to put his opinion in antagonism to theirs were he not in a position to say his experience warranted him in doing so to some extent.

The vote was heartily passed, and Mr. Pitchford thanked the members for their kind appreciation.

Mr. J. F. Simpson proposed a very hearty vote of thanks to the President for the way in which he had conducted the meeting that day. Although the vote was usual, it was none the less sincere he was sure. (Applause.)

Professor Penberthy seconded with much pleasure, and thanked the President for bringing the specimens he had.

The resolution was carried very cordially, and acknowledged by Mr. Goodall.

Afterwards Mr. J. F. Simpson very hospitably entertained those gentlemen who were able to stay to a delightful river trip on board a steam launch.

PREVALENCE OF TUBERCULOSIS IN THE DOMESTICATED ANIMALS.

[Abstract.]

Read at the recent meeting of the Lancashire Veterinary Medical Association.

Professor Delépine, after alluding to the large number of vertebrates which are liable to tuberculosis, explains that he would limit his remarks to the prevalence of tuberculosis among those mammals which have been

domesticated. The fact that tuberculosis was frequent among domestic animals is of importance, not only because the flesh and milk of several of these animals are used for food by man, but also because many of them come in more or less direct contact with man in farms, in towns, and even in ordinary dwelling houses. For if it is well proved that dried and pulverised tuberculous products of human origin can infect the lower animals when mixed with the air they breathe, it is not less probable that the reverse is true.

The lecturer did not, however, wish to discuss the question of transmissibility of tuberculosis from man to the lower animals and from the lower animals to man, a subject which he thought was well understood now and on which he had previously lectured before the Association. Among the mammals living in our midst several have for a long time been supposed to be refractory to tuberculosis, *e.g.*, the horse, the goat, the dog, and some others. This immunity is, however, more apparent than real, and may in most cases be explained by one or the other of the following three circumstances :—

1st. Some kinds of animals by their mode of life are more exposed to infection than others, thus cows kept in ill-ventilated byres in towns are much more exposed to infection than sheep or goats living in the open.

2nd. Some animals respond to the experimental tests of inoculation differently from what others do. Thus subcutaneous inoculation gives rise to tuberculous lesions more easily in the guinea-pig than in almost any of the other animals which are also liable to tuberculosis.

3rd. For different animals tuberculous lesions affect different types and distribution. It is only necessary to mention the differences observable in the horse, cow and pig to show the importance of this as a possible source of error, especially in days gone by.

The following statements refering to the prevalence of tuberculosis in each kind of domestic animals are based partly on statistics chiefly collected for public purposes by observers such as Jölme, Ostertag, Bang, Lydkin, Arloing, Nocard, McFadyean, etc., and partly on observations made by the lecturer in the last few years, during which he has been able to see instances of non-experimental tuberculosis in most of the domesticated animals.

Cattle are, with man, the mammals the most liable to tuberculosis.

By putting together a few of the figures collected in England, France, Germany, Denmark and Holland, and giving the number of tuberculous animals in over 600,000 heads of cattle it is found that over 16 per cent. were affected. One is certainly not far wrong in saying that out of every 10 cows one or two are certainly tuberculous. Yet this statement must be qualified, for there are districts in which tuberculosis is almost absent, whilst in others it is so very prevalent that a non-tuberculous cow is the exception. This is specially true of large towns, where milch cows are often kept in infected dairies. In such dairies three to six, seven, or even eight cows out of ten are tuberculous, statistics to that effect have been collected not only in France and Germany, but also in England and Scotland.

The way in which these cows become infected are evident enough if the distribution of the tuberculous lesions are kept in mind. The air passages and the alimentary canal are undoubtedly the paths through which the bacilli generally penetrate into the organisms, either with contaminated air or with contaminated food. Infection through the genito-urinary tracts, the udder, the skin, though possible is undoubtedly of rare occurence.

It is evident that infection in most cases takes place after birth, the supposed share of heredity is now more than doubtful. Nothing is more convincing in this respect than the statistics relating to the prevalence of tuberculosis in calves. From returns obtained chiefly in Germany, Denmark, and France, and based on the examination of more than 2½ millions of calves it may be said that not more than 0·03 per cent are affected, *i.e.*, that not more than 3 calves out of 10,000 are tuberculous. From certain statistics collected in Saxony it is evident that however small the number of tuberculous calves is, that number is gradually increasing.

Swine are not generally supposed to be very liable to tuberculosis, but we have more and more evidence to show that this is not quite a correct impression. Most German returns show that at least one pig out of every 100 is affected with tuberculosis, and in some cases one pig out of 60. In Saxony the percentages were in 1891 : 1·07, in 1892, 1·37 and in 1893, 1·64, a gradual increase similar to that which has already been noticed in connection with cattle. By putting together statistics collected in Germany, Holland and France, and relating to nearly one million pigs, one gets a general percentage of 0·85, but some of the percentages given, especially in France, are suspicously low. By adding to these figures some German and some unusually high Danish returns, quoted in the Report of the Royal Commission on the effect of food derived from tuberculous animals, a higher percentage is obtained, viz., 2·75, based on the examination of nearly one and a half million pigs. From this it would appear that 1 pig out of every 36 pigs is tuberculous. If it is remembered that in certain countries much pork is eaten salted or smoked but uncooked the importance of tuberculosis in swine will become apparent, for neither smoking or salting can be relied on for the destruction of the tubercle baccillus. In the pig the infection generally takes place through the alimentary canal. Young pigs fed on tuberculous milk or other tuberculous products are extremely readily affected, as proved by several experimenters since Chauvean in 1868, a result entirely confirmed by Dr. Woodhead and Dr. Sidney Martin. Hence the danger of throwing to the pigs uncooked tuberculous milk or offal as is not unusually done. Nocard believes that 9 out of 10 cases become infected through the alimentary canal. This is supported by the distribution of the tubercular lesions which affect chiefly the whole of the lymphatic ganglia connected with the alimentary canal from mouth to large intestine. The liver and spleen are generally affected but the serous membranes are much less affected than in cattle. The lungs are often riddled with miliary tuberculosis, a result of general infection. Calcification of tubercle is much less frequent in swine than in cattle. Chronic affection of the glands of the neck and of the bones give rise to what has been described under the name of pig's scrofula.

In the Horse numerous instances of tuberculosis have been put on record, yet the animal used to be thought to possess a special immunity against tuberculosis. There is no sound basis for any estimation of the percentage of horses affected. From the way in which the thoracic and the abdominal organs are affected it seems certain that infection may take place either through the air or the food passages. But the baccillus must generally enter the body through the alimentary canal. What is specially remarkable about tuberculous lesions if in the horse is the extraordinary proliferation of lymphoid tissue which is associated with them. The appearance of the spleen is also characteristic, and before the true nature of those lesions was recognised they were supposed to be lymphadenomatous. In some of these lesions the number of tubercle bacilli is at times extremely large. It is interesting to note that in the disease called lymphadenoma, lesions resembling closely those produced by tuberculosis in the horse are observed, but here tubercle bacilli cannot be demonstrated in ordinary cases by the usual methods. There is ground to believe that tuberculosis is more frequent in the horse than it used to be, and this is probably connected with the custom which has

become prevalent in some district of bringing up foals on cows' milk.

In the Sheep tuberculosis is undoubtedly rare. Taking the Danish and German statistics as guides it would appear that not more than 11 sheep in 10,000 can be expected to be tuberculous under ordinary circumstances; in fact this figure is too high owing to the probable errors caused by various pseudo-tuberculoses. The proportion attacked is usually much smaller than the one just given being probably seldom above three in 10,000 and often much less.

The Goat, the supposed special refractoriness of which is taken as the basis for a method of serum-therapie for tuberculosis, has now been found not to be immune. Not only can it be infected experimentally but several instances of non-experimental tuberculosis have been described by several observers; one case examined by McFadyean has been on record for several years now. In several instances the tuberculosis has been acquired by cohabitation with tuberculous cows or feeding on cows milk.

Instances of tuberculosis in the Dog and Cat are becoming more and more frequent in our pathological records. These animals undoubtedly often become infected owing to their living in the houses of tuberculous human patrons, but in town they may become dangerous to those who make pets of them, and specially to children.

Regarding tuberculosis in Birds, the speaker brought forward the importance of not being too much impressed by the differences between avian and human tuberculosis. We had to deal here only with varieties of the same bacillus, and as we know little of the conditions under which the tubercle bacillus lives saprophytically, it is impossible to tell at present whether the avian tubercle bacillus may not at times become a source of danger to man. The facts that in some poultry yards tuberculosis spreads rapidly and that when the disease has occurred once it is difficult to eradicate, show that avian tuberculosis is a very contagious disease. In conclusion the speaker pointed out that domesticated animals constituted a breeding ground for a bacillus which was one of the most dangerous enemies of human life.

Recent observations showed that there was a tendency towards an increased prevalence of tuberculosis amongst these animals. Meanwhile it is evident that considerations of mere economy cannot much longer prevent the State from dealing actively with such a glaring danger. It was fortunate under those circumstances that veterinary surgeons should have been called upon to assist medical officers of health in the inspection of animals used for food. The special knowledge which a veterinary man could bring to bear on such questions should make it possible for us to arrive before long at a correct estimate of the magnitude of the danger to which we are exposed through tuberculosis. This should be known not only in a general way but accurately in each district, and to the veterinary profession we are bound to look for the information still wanted.

EXTRACTS AND NOTES.

VETERINARY INSPECTION IN ROME.

For some time past excellent regulations have been in force in Rome proper in relation to the health of milch cows and other animals which supply milk to the residents. By an order of the syndic just issued similar regulations are put in force for the whole of the Commune, which includes a considerable extent of the surrounding Campagna. They are to the following effect: All milch cows and other animals which supply milk in the suburbs and Agro Romano will be subjected to a rigorous examination by the municipal veterinary surgeons. To this purpose notice of every animal introduced into the Commune must be given to the health authorities before the milk can be sold, and it is then placed under the inspection of the veterinary surgeon. When the animal is healthy and capable of furnishing good milk it will be marked in the horn, and a special license will be given to the owner. These animals will be inspected every year, and in the months of April, May, and June, and also on any other occasion that the authorities may deem necessary. The cows suspected of tuberculosis will be treated with tuberculin at the expense of the owners, and those diseased will be slaughtered. The extension of these regulations to the whole Commune is a great boon to the inhabitants, as now all the cows which supply milk to the city will be under inspection, and this will prevent the owners in Rome proper sending tuberculous cows into the Campagna, where they might continue to supply milk. The milk coming from the Campagna will be preferable, as it will be obtained from cows kept in the fields.—*The British Medical Journal.*

INOCULATION FOR SNAKE BITE.

SIR,—As a sequel to the article published in *The British Medical Journal* of June 15th concerning the researches of Dr. Thomas Fraser about the immunity against the venom of snakes, researches which corroborate the results that I have myself made known in my statements published in the *Annales de l'Institut Pasteur* in May, 1894, and in April, 1895, also by several communications to the Académie des Sciences de Paris, I would be very much obliged to you to inform your readers that since last January I prepare, at the Institut Pasteur de Lille, antivenomous serums from both horse and ass. I have already sent numerous samples of this serum to be used in treatment of man in the British East Indies, in Australia, and in the West Indies, and I have always on hand doses at the disposal of doctors who may wish to try it. Each bottle has with it a paper of instructions as follows:

INSTRUCTIONS.

The antivenomous serum is serum taken from an ass or a horse immunised against venom of snakes. It will retain its effects if kept in as cool a place as possible, away from daylight and without taking the phial out of its box. At or above the temperature of 50° cent.--122° Fahr.—the serum becomes inactive Its preservation has been guaranteed by adding a very small quantity of camphor.

Preventive Power.—The preventive power of this serum is, at the least, of 10,000 that is, it is sufficient to inject rabbits preventively with a quantity of serum equal to 1-10,000 of their weight to enable them to bear, one hour afterwards, without their being intoxicated, a dose of 1 milligramme of dry venom of *cobra capella* of medium activity, said dose sufficient to kill proof rabbits in less than four hours.

Therapeutical Action.—If injected in sufficient quantity to persons bitten by snakes, the antivenomous serum will prevent the effects of the venom providing intoxication is not too far advanced. It must be injected as soon as possible after the bite. Generally its intervention is still very efficacious an hour and a-half after the bite with adults, who rarely die until three hours after the bite of the most dangerous species of snakes. The serum is active against the venom of all species of snakes existing in the ancient and new world. It has been experimented with the venoms of the *cobra capella* and *trimeresures* of

Asia, the *naja haje* and *cerastes* of Africa, the *crotalus* of America, the *bothrops* of the West Indies, the varieties of *pseudechis* and *hoplocephalus* of Australia, and the vipers of Europe. The dose to employ varies according to the species of the biting snake, the age of the person bitten, and the time of the intervention. Generally 10 cubic centimetres are sufficient for children under 10 years and 20 cubic centimetres for adults. However when the bite comes from a very dangerous species, such as the *cobra capella*, the *naja haje*, the *crotalus*, the *bothrops* of the West Indies, it will be prudent to make one single injection at first of a double dose.

Treatment of Venomous Bites.—The first precaution to take is to surround tightly the bitten limb as near as possible to the bite and between the latter and the trunk with a strip of handkerchief. The wound will have to be washed with a solution of hypochlorite of lime diluted to 1 gramme for 60 of water previously boiled, tilting between 0 lit. 800 to 0 lit. 900 of chlorine per 1000 cubic centimetres. The dose of serum must be injected in the subcutaneous cellulary tissue in the right or left side of the belly, and with the usual antiseptical precautions. Then, with the same syringe, 8 to 10 cubic centimetres of the solution 1-60 of hypochlorite of lime will be injected altogether, but in the different parts surrounding the bite and in the passage of said bite. These injections are intended to destroy there the venom which has not yet been absorbed. From that time the strip can be taken away from the limb; the patient must be frictioned and coffee or tea be administered, and he be covered warmly so as to provoke an abundant perspiration. The administration of ammonia or alcohol must be avoided; it would only be injurious both to the patient and to the treatment by the serum. It is also unnecessary to cauterise the bitten limb either by red iron or chemical substances.—I am, etc.,

D. A. CALMETTE,
Directeur de l'Institut Pasteur de Lille

Lille, July 12th. (*British Medical Journal.*)

Science has been making rapid strides in the discovery of poisons which counteract poisons, and diseases which are made to conquer themselves. The latest is the antitoxiny for the cure of diphtheria, but something even later appears to be on the eve of discovery as a positive cure for snake bite, if the following particulars are correct. Certainly they are worthy of investigation, and if the poison of the cobra can be cultivated and attenuated as to form a virus capable of inoculation and rendering human beings safe from snake bite, the boon would be invaluable. Dr. Cartwright Reed of Herschel says that two years ago a pointer dog was killing a cobra, and got bitten badly, with the usual severe symptoms of snake poisoning. Ammonia was used, and the dog recovered. A second dog was bitten, but milder symptoms followed. Both these dogs now go for snakes of all kinds, and get bitten about the lips especially. Last week one of these dogs got hold of a large hooded snake by the head, and the other by the body. The snake fastened upon the dog's lip in this case made it bleed, the other actually pulling the body in half. Five or six have been killed by them this season, but they seem both to be protected by the previous bites. A native was bitten twice in succeeding years. The first bite caused most severe symptoms of snake poisoning; the second bite, from a young fierce cobra, though apparently more severe than the first one, yet no bad symptoms, beyond a little local sore, followed. The doctor thinks that there must be something in the report by natives that when once bitten by a poisonous snake with marked symptoms of poisoning, there is no fear whatever from any subsequent bites.—*The South African Medical Journal.*

PROSECUTION UNDER THE V.S. ACT.

In the Edinburgh Sheriff Court on Wednesday, July 24th, before Sheriff Rutherford, William Johnston, blacksmith, Roslin, Mid-Lothian, appeared to answer a charge of having contravened a section of the Veterinary Surgeons Act of 1881, in so far as he, not being a Fellow or Member of the Royal College of Veterinary Surgeons, unlawfully implied that he was a Member of the College by declaring and stating so in a certificate granted by him to the Employers' Accident and Live Stock Insurance Company, relative to the death of an animal, the property of Mr. James Slater, of Loanhead. Johnston admitted the charge, and Mr. Craigie, advocate, who appeared on his behalf, said that his client had considerable skill in dealing with horse diseases, and farmers in the district consulted him extensively. He had been asked to fill up the certificate of the death of a horse for an insurance company, and unfortunately he had inserted the word "yes" where asked the question "if he was a Member of the College of Veterinary Surgeons." The respondent had done so without considering what he was doing, as he had no desire whatever to pretend to anybody that he was a member of the College. Questioned by the Sheriff, Mr. Craigie said that Johnston did not charge the farmers anything, although they sometimes gave him 2s. 6d. for his advice. There was no desire on the part of the respondent to make a profit in the matter, and he submitted that an admonition or the imposition of a small fine would meet the ends of justice. Mr. Morison, advocate, who appeared for the prosecutor, submitted that this was a case where a substantial fine should be inflicted. Sheriff Rutherford said he did not doubt that the respondent had acted in perfect *bona-fide* in granting this certificate, but at the same time he committed a great error in not scoring out these words "I being a Member of the Royal College of Veterinary Surgeons" instead of adding the word "yes" where he was asked to state if he was a Member of the College. However, he was of opinion that Johnston had acted in good faith, and he would impose a fine of 10s., with expenses, amounting to £2 2s. The complaint was at the instance of Mr. Mackay (Macpherson and Mackay), with the consent and with the authority of the Council of the Royal College of Veterinary Surgeons. This is the first prosecution in Scotland under the Act of 1881.—*Edinburgh Evening Dispatch.*

DO FISH SLEEP?

The question as to whether fish sleep is at present being discussed in *Land and Water*. Mr. Matthias Dunn, who has had the question under consideration for some years, thinks there can be no doubt that fish sleep.

He has already demonstrated, he writes, "that most of the fishes have dual nervous systems; further, that pollack, being night feeders, slept by day, and, having gregarious habits when rest was premeditated, sought the highest ledges of rocks above the sea bottom, and there swam in pyramidal circles, with the inside eye closed, and watching their enemies with the outer eye. In this manner they divided their personality, possibly giving each sense sleep, until the whole system had duly rested. On these lines I have also accounted for sharks and pilot fish being able to follow vessels in the Atlantic for weeks together. On one occasion I had some young blennies in a glass globe on my study table. On breaking through the egg their first swim was so quick and frisky that it seemed the very essence of pleasure and gladness, and I thought they were never going to tire. On looking for

my little innocents next day I was sorry to find that their exuberant joy was over, and that all were apparently dead on the bottom of the glass. I stirred them up with a long flat knife, and they came to the surface in the whirling water, as limp as rags, like so much inanimate matter; and in the presence of these dead beauties I felt my ignorance in not understanding the secret of such young life, and wondered if I could have made the mistake of poisoning them. I was about to throw them down the drain, when pressing business obliged me to leave them for some time, and you may judge of my surprise, on returning, to find them all swimming as briskly as before. On observation, I found that sleep with these little ones was not at regular hours, although all generally slept at the same time. My tanks were on the shore, and I found that the wrasses and the flat fishes also appeared to have dual nervous systems, for each of these species could look forwards and backwards with their eyes at the same moment, and could comprehend all things touching their own interests that were going on before or behind at the same instant, or they could put one eye at rest and leave the other active, when the resting eye would have a quiet dulness about it, as of sleeping. The sleeping habits of the pilchard, mackerel, and herring, have but little in common. In his great work on the fishes of Great Britain and Ireland, the late Mr. M. F. Day gives good evidence in support of his opinion that most of the fishes sleep; among those mentioned are blennies and tench."

Another correspondent is also of opinion that fish sleep, that is, they repose in so far as the voluntary senses and muscles are concerned. "I have watched salmon in clear, still water," he says, "where from the rocks above all their movements were distinctly visible, and at times many of them would appear to be sleeping, oblivious to what went on around, so long as nothing unusual occurred to alarm them. When salmon are resting it is surprising how little they are frightened by big stones thrown near them, so long as the thrower is invisible; but the moment he comes within their range of vision, which, under certain conditions is pretty extensive, there is a general scattering and evident alarm. Single fish are much more constant in their position, and more particular as to the suitability of the 'lie' they choose, and as they are generally the latest arrivals and more active fish, occupy the best feeding places that happen to be vacant. In certain states of the water a feeding fish will often lie above a stone, with his tail perhaps resting on it and his eyes carefully scanning everything that passes; while when reposing, he will fall back into the eddy behind, and be quite indifferent to what passes down stream, and certainly appears as if asleep."

ARMY VETERINARY DEPARTMENT.

Extract from *London Gazette*, of 23rd July, 1895.

Veterinary-Major C. W. Gillard is placed on temporary half-pay on account of ill-health. Dated 24th July, 1895.

Veterinary-Captain G. H. Fenton arrived from India on 6 months sick leave of absence.

Dogs for War.

Some time ago we gave our readers an account in detail of the methods pursued in Germany in training dogs for war purposes. That training still goes steadily forward with full success. Recently we stated that in the neighbourhood of Dresden several well-trained animals were put through an interesting trial. An infantry company was detached to cover the transport of horses in face of an imagined enemy, whose movements were watched by non-commissioned officers, accompanied by dogs, sent out in advance to a distance of two kilomètres. These men maintained constant relations with their company by means of the dogs, which covered the intervening distance in less than two minutes. One animal, indeed, although the day was very hot, traversed the two kilometres several times in one minute. In this way the company was kept fully informed of the enemy's movements. The animals were employed also for the distribution of ammunition in the field. Each dog, provided with a kind of saddle which carried 300 cartridges, passed along the lines of skirmishers, the men taking as many cartridges as they required to make up their allowances, and, the supply being exhausted, the animal ran back to secure more. The dogs were also tried in their work of discovering the wounded. Some remained by the prostrate men barking, while others hastened to bring up the ambulance, and some carried away small pieces of clothing as intelligence for their guides. In all these acts of usefulness the dogs evinced great intelligence, and showed the excellent result of much careful training.—*Army and Navy Gazette.*

Personal.

Mr. E. F. DE JONG, F.R.C.V.S., Jock's Lodge, Edinburgh, has recently passed his final examination and been admitted a Licentiate of the Royal College of Physicians and Surgeons of Edinburgh, and the Faculty of Physicians and Surgeons, Glasgow.

According to a Bangalore paper the Farriers of the 19th (P W. O.) Hussars have subscribed and presented to Vet.-Captain Fenton, a massive gold signet-ring, as a token of their esteem and respect for him. The ring bears a monogram and inscription, and the occasion for the presentation is the immediate proceeding of Captain Fenton to Europe on leave.

OBITUARY.

WILLIAM BARROW, M.R.C.V.S., Newmarket.
Graduated May 28th, 1851, London.

Mr. BARROW died on Monday 15th inst., at Cynthia House, Newmarket. For many years he was the leading veterinary surgeon at Newmarket. He was over 80 years of age, and had for some time been failing in health. He was elected Vice-president R.C.V.S. in 1858, and had also served as member of Council.

THOMAS HARWOOD, M.R.C.V.S., Liverpool.
Graduated April 27th, 1863, Edinburgh.

Regret will be felt among veterinary surgeons and others at the announcement of the death of Mr. Thomas Harwood, which took place on Wednesday, 17th inst., at Egremont, at the age of 54 years. Mr. Harwood served his apprenticeship with the old Liverpool firm of Messrs. Sumner and Quaile, Naylor Street, and afterwards took his degree of M.R.C.V.S. at Edinburgh, in company with gentlemen of his profession who are still in business in this city. About the year 1876 he commenced practice in Boundary Street East (between Kirkdale Road and Great Homer Street), but some four or five years ago removed to Egremont, where he conducted an extensive business up to the time of his death. Mr. Harwood was remarkable for his good qualities. Those who enjoyed the pleasure of his acquaintance will remember the quiet, gentlemanly, and unobtrusive spirit he at all times exhibited, and his death will come as a shock to many of his friends in this district.—*The Liverpool Mercury.*

WILLIAM EASON, V.S., Cranbrook, Kent.

Another well known figure in the Weald of Kent passed away on Wednesday morning, July 17th, in the person of Mr. William Eason, veterinary surgeon, High Street, Cranbrook. For the past six months he had been suffering from internal complications, which prevented him from pursuing his professional duties. At times he appeared to have improved, and then again he had been confined to his bed, but his death was somewhat unexpected. On Tuesday night he was again attacked with hæmorrhage, and died on Wednesday morning at a quarter before six. For 43 years he had resided at Cranbrook, and during the whole of that period has carried on the profession of a veterinary surgeon with great success. He was well known throughout a considerable part of Kent, and he was always found to be a genial and kind hearted man. His professional abilities were well recognised, and much sympathy is felt with the bereaved family. He was 64 years of age, and leaves a widow and eleven children. The funeral took place on the Saturday.—*Kent County Examiner.*

CORRESPONDENCE.

CLASSIFICATION IN DIRECTORIES.

SIR,

Could not some means be taken to compel directory authorities to be more careful in describing veterinary surgeons, as they frequently classify as such men who have no claim whatever to that designation? This I can prove in several instances.—Yours faithfully,

FAIR PLAY.

[The Council have attended to this matter more than once but can only point out errors to the publishers.—ED.].

ACUTE FARCY.

SIR,

I see in Friedberger and Fröhner's work on pathology that the chronic form of farcy is more rare than the acute form. Is this your experience? I have always thought that the opposite was the case.—Yours truly,

M. H. HAYES.

Melton Mowbray, 22nd July, 1895.

[If by *acute* farcy is meant those cases in which constitutional disturbance and high fever is an accompaniment. We may say that our experience is opposed to that of the pathologists quoted. The larger proportion of cases of farcy might continue at work—except for the requirements of the law.—ED.].

ANÆSTHETICS AND THE "STANDING" OPERATION.

SIR,

Of late there has been a great deal written about "castration standing." In last week's *Record* I notice a letter by Mr. Parr, who evidently thinks it his duty to arouse us hard-hearted practitioners to a sense of humanity. He commences his exhortation, "Why this craze? I can see no earthly reason for attempting to castrate a colt standing," etc., etc. I notice that the writer does not state whether he has ever given the standing operation a trial, or even seen it performed in a skilful manner, therefore, I would advise him to do so before asking another rather absurd question. Within these last two years I have castrated about 500 horses of all ages and breeds by the standing operation, and my experience is, that, if only for "humanity's sake" this mode of operating is by far the best.

To begin with, the operation is so quickly over, in fact the patients do not seem to show pain or excitement, there is neither swelling nor stiffness at any time afterwards, and they never require any further attention. Without exception all my clients have made the remark that they will never have another colt cast for this operation.

In conclusion, I should feel obliged if Mr. Parr would state *one* of his "many reasons" why the operation by casting is the more humane and scientific.

H. A. BARRETT.

SIR,

Your correspondent Mr. Parr is a fortunate individual, and his lines seem cast in pleasant places. In these days of keen competition, fair and otherwise, we fancy there are few practitioners who can say they have met with no refusals when they proposed to chloroform a colt to be castrated, if indeed they have the temerity to make the proposition. That is, if our clients have to pay, and we do not suppose Mr. Parr chloroforms *gratis*. We not not quite follow Mr. Parr in his reasoning. His great reason for casting a horse is on the score of humanity. Now leaving out the question of anæthetics, which he does not touch till later on, we fail to see where the humanity comes in. Is it not more humane to keep a horse on his feet than to cast him? Then having cast him, we have more struggling till he is under the influence of the anæsthetic. The operation completed, the colt has to be brought round—sometimes a difficult matter. This involves a double risk, small perhaps, but it exists. Meanwhile the time is passing, a valuable item in a large country practice, and we find we have castrated one colt while a standing operator would have castrated three at least. As to its being such an excruciatingly painful operation, it may be so, but our experience is that they start eating directly afterwards and continue to do so. Can Mr. Parr say the same after he has cast, chloroformed, and castrated a colt?

We do not for a moment under value the use of anæsthetics, and we think they ought to be more often used than they are, but we are not of opinion that castration is an operation in which they are an absolute necessity. Neither do we advocate the standing operation before all others. Personally we prefer it, but we never forget a piece of advice given us at College as to the best methods of performing operations, viz., the best method is that which one can do best. Suppose an operator has been accustomed, let us say, to castrate with great success in the good old fashioned style, irons and clams (not forgetting the caustic). How foolish he would be to try another method because it happend to be a new one.

We should like to ask C. P., *vide Record* of July 13th, if he has ever tried castrating standing with the ecraseur. This method we have found to be most expeditious. It is simplicity itself. No clams are required, there is very little hæmorrhage, and the colt seldom requires to be seen a second time.

W. H. D.

SIR,

Please allow me to strongly emphasise every word in Mr. Parr's letter published in your last issue. I utterly fail to see the least advantage in the standing operation. Three colts only have I seen castrated standing, and given three good men to assist me could have cast and emasculated six in the same time. It is disgustingly cruel, and judging from my own experience, cases of schirrous cord are rapidly increasing. Since last October three cases have come under my notice, from one of these (a valuable steeplechase horse castrated standing last autumn) I removed a tumour weighing over two pounds. I fully believe that public opinion will in due course insist upon this operation being performed under chloroform; there will be no need for legal compulsion. Dur-

ing the last five years I have castrated not less (probably more) than 100 colts under chloroform, not one of them has given me the slightest trouble either during or after the operation. It never takes more than from 1½oz. to 2 oz. of the drug to produce perfect anæsthesia, and there is absolutely no danger as the operation is so short. It is also cleanly, bloodless, and scientific. I have never seen secondary hæmorrhage. Chloroform has been blamed for this so I mention it. Many people in this district were crazed to have their colts cut standing two or three years ago, but those who have seen the reverse method have not only altered their opinion but are rapidly converting others. As to the expense of chloroform, it never troubles me. I use it for all painful operations and never mention it in the bill. Years ago in this neighbourhood it was customary when castrating to give the men 6d. or 1s. for beer. This custom, like many other ancient institutions, is buried in oblivion. The poor animal gets the benefit, for the 6d. is spent in chloroform.—Yours truly,

B. Freer.

Sir,

The letter by Mr. Parr will be read with great pleasure by all practitioners who advocate and adopt anæsthetics. His remarks with regard to castration I endorse thoroughly, having administered chloroform to animals of all ages for this operation, with the most satisfactory results. Of course those practitioners who are so fond of boasting publicly of the expeditious manner in which they castrate will give an opposite opinion.

Sarcastic remarks are frequently made with reference to those who adopt anæsthetics; we hear these bold (?) operators describing with *éclat* the number of colts they can castrate per hour. Of course all this valuable information is given in a public place for the advancement (?) of the profession, not as an advertisement!! But let us enquire in what manner the owners of horses view the subject of anæsthetics. My experience is that once they have seen operations performed in a painless manner they will insist on future operations being performed likewise. This is no fiction, as I am aware of several cases in which the owners of horses have insisted on chloroform being used for the operation of castration.

In one instance the veterinary surgeon being ignorant on the subject, had to allow the owner of the horses to administer the chloroform himself, not very creditable from a professional point of view, but true nevertheless. I consider that the owners of animals have a perfect right to demand that anæsthetics be employed in painful operations, and to expect that veterinary surgeons are skilled in their administration. The absurd reasons so often brought forward will not hold good to an intelligent horseowner in the present day. Neither will the "acrobatic performances of the standing castrator" help to stifle the dictates of humanity.

What is the objection to casting colts for the operation? It surely cannot be the fear of accidents occurring, as with ordinary precautions these are reduced to a minimum. The time involved surely does not merit consideration; there is no necessity to secure the animal on his back, as the operation is far more easily and safely performed with the animal on his side, provided an anæsthetic is employed. Given proper clamps and torsion forceps, and expertness in the operation, I fail to see the advantages of the standing position except for purposes of advertisement.

We do not find human surgeons advertising and boasting of such "acrobatic performances" in their work. We do not hear of *caustic* clams, and other secret concoctions endowed with supposed supernatural powers for such a simple matter as the prevention of hæmorrage, from the spermatic artery, known only to the inventors. Surely it is high time that such ideas should be relegated to their proper place, and that such a simple operation as castration should be performed in a scientific manner, not requiring either *caustic* clams or wooden clams to suppress hæmorrhage.

One would imagine from reading the advertisments issued so frequently that there was something really mysterious about the operation when performed in the standing position. But the fact of the operation being so simple and yet so successful with the animal cast may be some excuse for practitioners who desire to gain notoriety, by demonstrating their skill, pluck and agility to an admiring crowd by operating with the animal in the standing position. Now and then we hear that these clever operators fail and the performance is finished up by having to cast the animal. Considering the wild and intractable nature of the colts in this country I imagine that the latter procedure would be the rule rather than the exception.

At any rate I hope that the day will be far distant when the owners will ask us to operate standing; the trouble of haltering and casting is quite sufficient at present, without incurring further risk of bodily harm on our part.—Yours truly,

E. Wallis Hoare.

Cork, July 22nd, 1895.

Sir,

I say Hear, hear, to Mr. Parr's remark, "Why this craze"? and hope to see the time when it will be indeed a thing of the past. I hope and believe castration of animals will ere long be regarded as one of the most important veterinary surgical operations connected with agriculture. I don't believe that the time is so near that it will be illegal to perform the operation without chloroform, for the benefit of anæsthetics can never outweigh the evils of bad manipulation, but it may be insisted that all operators shall prove themselves practically able to perform this necessarily painful operation upon farm stock with precision and hence with humanity.

C. W. Herbert.

South Wigston.

"GRUNTERS."

"Right or Wrong of his Wind?"

Sir,

It is only when we get into a tight corner, such as we had detailed in your paper a fortnight ago, that we keenly appreciate the free and easy style of veterinary nomenclature. In your issue last week, you had a letter in which, to my mind, the writer rather misses the point at issue. He states, and that correctly (and I take it most men do), that grunting is an unsoundness, and that he would not pass a hunter with this defect. What about a harness or draught horse, would he pass him sound? Men who examine a great number of Shire and Clydesdale horses in a year, will find a number of grunters amongst them and very few of them roar, but still they are legally unsound. To what cause do those horses grunt, is it from some diseased condition or only fear? We have all watched or known a horse that was a grunter, for years after our examination, and he never developed any other affection. This last remark applies chiefly to draught horses, and I am inclined to the opinion that in racers, hunters and harness horses, grunting is much more likely to be followed by roaring.

The point at issue seems to be, is grunting included in the warranty "right of his wind"? First of all I would ask what is meant by "right of his wind"? Certainly not a roarer nor a broken-winded horse, in this we are all agreed; but does a grunter get scot free? That

is the rub. Of course you catch him when he has been warranted "legally sound," but what about him when warranted "right of his wind"?

Now roaring is a noise produced in the inspiratory act, grunting in the expiratory act, so we see they both take place in respiration. If roaring, an abnormal inspiratory act, be included in "wrong of his wind," why should grunting, an abnormal expiratory act, not be included in this warranty?

They are both abnormal respiratory acts; and an animal to be right of his wind, must as a natural law have normal respiration.—Yours truly,

A MEMBER.

INSPECTION OF SLAUGHTER HOUSES.

SIR,

Not long since the Duke of Westminster headed a deputation to Mr. Shaw-Lefevre, in regard to the evils of the present system of slaughtering animals, and the want of *anything like adequate inspection of slaughter houses*. Our profession will echo "not before it was needed."—Yours faithfully,

29 Dorchester Place, SANITARY.
Blandford Square, W.

COMMUNICATIONS, BOOKS AND PAPERS RECEIVED—Capt. M' H. Hayes. Messrs. B. Freer, E. W. Hoare, C. W. Herbert F. W. Pogson, W. H. Davidson, "Fairplay."

American Veterinary Review, *Port of Spain Gazette*, *The Daily News* (Trinidad.)

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